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### (54) Filling device and method for use in manufacturing of gel filled prostheses

(57) Filling device and method for use in manufacturing of gel filled prostheses which provides fast and accurate filling of prosthesis shells without deterioration of the gel or induction of Air into the prosthesis. The filling method utilizes a dual port cannula (44) for penetrating a preslit (63) fill port (64) on a prosthesis shell (68), the cannula having one port (42) coupled through a flex-

ible tube (38) to a peristaltic pump (36) supplied with gel under pressure, and a second port (46) coupled through a flexible tube (50) to a vacuum system (56). The cannula and prosthesis shell being filled are supported on a scale (74), with the flexible tubes being disposed so that pressure variations in the tubes do not effect the scale readings. Various other novel aspects of the method and apparatus are disclosed.

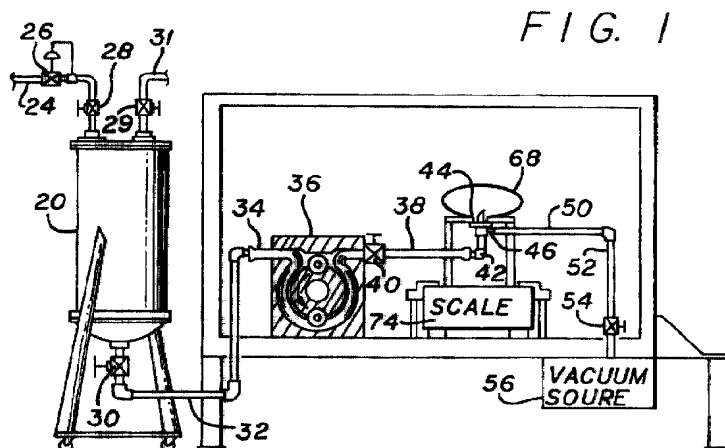


FIG. 1

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# EUROPEAN SEARCH REPORT

Application Number  
EP 99 30 6021

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 5 632 777 A (PETRICK TIMOTHY B) 27 May 1997 (1997-05-27) * column 8, line 55 - column 9, line 51; figures 22,23 *	1,2	B65B3/18 B65B3/28 B29C31/06 B29C39/42 B29C39/24 A61F2/12
A	US 5 655 545 A (JOHNSON JEFFREY W ET AL) 12 August 1997 (1997-08-12) * column 4, line 48 - line 59; figures 2,3 *	1,2	
A	GB 2 257 387 A (EUROMAIL LTD) 13 January 1993 (1993-01-13) * abstract *	1,2	
A	EP 0 727 232 A (MENTOR CORP) 21 August 1996 (1996-08-21) * abstract *	9,10	
E	EP 1 044 720 A (MENTOR CORP) 18 October 2000 (2000-10-18) * claims 19,20 *	1-10	
A	US 4 411 295 A (NUTTER STEVEN D) 25 October 1983 (1983-10-25) * column 6, line 21 - line 35; figure 6 *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7) A61F B65B B29C
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>13 June 2001</b>	Examiner <b>Carré, J</b>
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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13-06-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5632777 A	27-05-1997	US 6060639 A AU 701672 B AU 1979395 A AU 706502 B AU 5210698 A CA 2186952 A EP 0748192 A WO 9523565 A US 5653757 A US 5558829 A	09-05-2000 04-02-1999 18-09-1995 17-06-1999 26-03-1998 08-09-1995 18-12-1996 08-09-1995 05-08-1997 24-09-1996
US 5655545 A	12-08-1997	US 5258026 A US 5500019 A	02-11-1993 19-03-1996
GB 2257387 A	13-01-1993	BE 1003149 A	10-12-1991
EP 0727232 A	21-08-1996	US 5658329 A US 5941909 A	19-08-1997 24-08-1999
EP 1044720 A	18-10-2000	NONE	
US 4411295 A	25-10-1983	NONE	